

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A zoom lens camera comprising:

an optical-element drive mechanism for driving optical elements of a photographing optical system along an optical axis thereof to perform a zooming operation in a ready-to-photograph state, and a retracting operation in which said photographing optical system is retracted to change from said ready-to-photograph state to a retracted state; and

a zooming-associating mechanism for associating at least one zooming-associated driven member with said zooming operation so that said zooming-associated driven member is driven by said optical-element drive mechanism in association with said zooming operation in said ready-to-photograph state, and for releasing said association of said zooming-associated driven member with said zooming operation during a transitional state between said ready-to-photograph state and said retracted state;

wherein said zooming-associating mechanism includes at least three rotational members which are coaxially positioned on a common rotational axis to be rotatable thereon relative to one another,

wherein said three rotational members include a master rotational member and a slave rotational member which are positioned at opposite ends of said common rotational axis, respectively, said master rotational member being associated with said optical-element drive mechanism to rotate, said slave rotational member driving said zooming-associated driven member by a rotation thereof,

wherein each opposed surfaces of any two adjacent rotational members of said three

rotational members include a rotation transfer portion, said rotation transfer portions being engaged with each other at predetermined relative angular positions thereof so that said any two adjacent rotational members integrally rotate, said any two adjacent rotational members being allowed to rotate relative to each other at relative angular positions thereof other than said predetermined relative angular positions, and

wherein said slave rotational member rotates together with said master rotational member after relative rotations among said any two adjacent rotational members occur in sequence when said photographing optical system changes from said retracted state to said ready-to-photograph state.

2. (Original) The zoom lens camera according to claim 1, further comprising a biasing member for holding said slave rotational member at an angular position thereof at which said slave rotational member is held before being rotated together with said master rotational member.

3. (Original) The zoom lens camera according to claim 1, wherein said master rotational member and said slave rotational member are identical to each other in shape and size, and symmetrically positioned with respect to a plane orthogonal to said common rotational axis.

4. (Original) The zoom lens camera according to claim 1, wherein each of said two rotation transfer portions comprises a projection which projects from said opposed surface thereof, so that each of said two rotation transfer portions has opposite end surfaces in said rotational direction,

wherein one of said opposite end surfaces of one of said any two adjacent rotational members and one of said opposite end surfaces of the other of said any two adjacent rotational members are in contact with each other when said photographing optical system is in said

retracted state, and

wherein the other of said opposite end surfaces of said one of said any two adjacent rotational members and the other of said opposite end surfaces of said other of said any two adjacent rotational members come into contact with each other after said any two adjacent rotational members rotate relative to each other when said photographing optical system changes from said retracted state to said ready-to-photograph state.

5. (Original) The zoom lens camera according to claim 1, wherein a peripheral surface of each of at least said master rotational member and said slave rotational member among said three rotational members comprises a gear portion.

6. (Original) The zoom lens camera according to claim 5, wherein said zooming-associated mechanism comprises:

at least one gear positioned between said master rotational member and said optical-element drive mechanism; and

another at least one gear positioned between said slave rotational member and said zooming-associated driven member.

7. (Original) The zoom lens camera according to claim 6, wherein said biasing member comprises a torsion coil spring positioned around an axis of a gear of said another at least one gear.

8. (Original) The zoom lens camera according to claim 1, further comprising a viewfinder optical system independent of said photographing optical system,

wherein said zooming-associated driven member comprises at least one movable optical element of said viewfinder optical system, said movable optical element being driven by said optical-element drive mechanism to vary a viewing angle of said viewfinder optical system in

association with said zooming operation.

9. (Canceled)

10. (Original) The zoom lens camera according to claim 1, wherein said optical-element drive mechanism comprises:

a zoom gear which is rotatable about a rotational axis parallel to said common rotational axis of said three rotational members; and

a cam ring which is rotatable about a rotational axis parallel to said common rotational axis of said three rotational members,

wherein said cam ring comprises:

cam surfaces for moving said optical elements of said photographing optical system along said optical axis thereof in predetermined moving manners; and

a circumferential gear formed on a peripheral surface of said cam ring to be engaged with said zoom gear, and

wherein said master rotational member rotates in synchronization with said zoom gear.

11. (Original) The zoom lens camera according to claim 1, wherein said zoom lens camera comprises a retractable zoom lens barrel which is positioned around said photographing optical system, and retracted into a camera body upon a main switch of said zoom lens camera being turned OFF.

12. (Original) The zoom lens camera according to claim 10, further comprising a zoom motor and a reduction gear train for transferring a driving force of said zoom motor to said zoom gear.

13. (Original) The zoom lens camera according to claim 6, wherein said zooming-associating mechanism comprises a cam plate positioned between said another at least one gear

and said zooming-associated driven member to be linearly guided in a direction orthogonal to a direction parallel to said optical axis.

14. (Currently Amended) A rotation transfer mechanism for a photographing optical system including a rotational ring which is rotatable forwardly and reversely, and an associated driven member which is driven in association with a rotation of said rotational ring, said rotation transfer mechanism comprising:

at least three rotational members which are coaxially positioned on a common rotational axis to be rotatable thereon relative to one another, said common rotational axis extending parallel to a rotational axis of said rotational ring,

wherein said three rotational members include a master rotational member and a slave rotational member which are positioned at opposite ends of said three rotational members in a direction of said common rotational axis, respectively, said master rotational member being continuously associated with said rotation transfer mechanism to rotate whenever said rotation transfer mechanism operates, said slave rotational member driving said associated driven member by a rotation of said slave rotational member,

wherein opposed surfaces of any two adjacent rotational members of said three rotational members, which are adjacent to each other in said direction of said common rotational axis, each include a rotation transfer portion, said rotation transfer portions being engaged with each other at predetermined relative angular positions thereof in a rotational direction of said three rotational members so that said any two adjacent rotational members integrally rotate, said any two adjacent rotational members being allowed to rotate relative to each other at relative angular positions thereof other than said predetermined relative angular positions, and

wherein said slave rotational member rotates together with said master rotational

member after relative rotations among all said any two adjacent rotational members occur in sequence when said photographing optical system changes from said a retracted state to said a ready-to-photograph state.

15. (Original)The rotation transfer mechanism according to claim 14, further comprising a biasing member for holding said slave rotational member at an angular position thereof at which said slave rotational member is held before being rotated together with said master rotational member.

16. (Original)The rotation transfer mechanism according to claim 14, wherein said master rotational member and said slave rotational member are identical to each other in shape and size, and symmetrically positioned with respect to a plane orthogonal to said common rotational axis.

17. (Original)A zoom lens camera having a retractable zoom lens which is retracted into a camera body upon a main switch of said zoom lens camera being turned OFF, wherein said zoom lens camera comprises:

a zoom lens drive mechanism for driving said retractable zoom lens along an optical axis to perform a zooming operation in a ready-to-photograph state of said retractable zoom lens, and for retracting said retractable zoom lens into said camera body to change said retractable zoom lens from said ready-to-photograph state to a retracted state upon said main switch being turned OFF; and

a interconnection mechanism which interconnects said zoom lens drive mechanism with at least one zooming-associated driven member so that said zooming-associated driven member is driven by said zoom lens drive mechanism in association with said zooming operation in said ready-to-photograph state, said interconnection mechanism releasing an interconnection between said zoom lens drive mechanism and said zooming-associated driven member while said

retractable zoom lens changes between said ready-to-photograph state and said retracted state,

wherein said interconnection mechanism includes at least three rotational members which are coaxially positioned on a common rotational axis are rotatable thereon relative to one another,

wherein said three rotational members include a master rotational member and a slave rotational member which are positioned at opposite ends of said three rotational members in a direction of said common rotational axis, respectively, said master rotational member being continuously associated with said zoom lens drive mechanism to rotate whenever said zoom lens drive mechanism operates, said slave rotational member driving said zooming-associated driven member by a rotation of said slave rotational member,

wherein opposed surfaces of any two adjacent rotational members of said three rotational members which are adjacent to each other in said direction of said common rotational axis each include a rotation transfer projection, said rotation transfer portions being engaged with each other at predetermined relative angular positions thereof in a rotational direction of said three rotational members so that said any two adjacent rotational members rotate as one body, said any two adjacent rotational members being allowed to rotate relative to each other at relative angular positions thereof other than said predetermined relative angular positions, and

wherein said slave rotational member rotates together with said master rotational member after relative rotations among all said any two adjacent rotational members occur in sequence when said retractable zoom lens changes from said retracted state to said ready-to-photograph state.